IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Claim 1 (Currently amended): An optical switch comprising:

an optical channel, wherein the optical channel comprises:

an input optical fiber for receiving a beam of light;

an output optical fiber;

a first support device connected to the input optical fiber and operable to apply one or more forces directly to the input optical fiber for creating a bend in the input optical fiber; and

a second support device connected to the output optical fiber and operable to apply one or more forces directly to the output optical fiber for creating a bend in the output optical fiber; and

a mirror positioned opposite the input optical fiber and the output optical fiber for receiving the beam of light from the input optical fiber and for reflecting the beam of light to the output optical fiber, wherein the bends in the input and output optical fibers direct the beam of light from the input optical fiber to the mirror to the output optical fiber.

Claim 2 (Canceled)

Claim 3 (Previously presented): The optical switch of claim 1, wherein the first support device comprises a first pair of actuators, wherein a first actuator in the first pair of actuators generates a first force along a first axis and a second actuator in the first pair of actuators generates a second force along a second, perpendicular axis to create the bend in the input optical fiber.

Claim 4 (Currently amended): The optical switch of claim 3, wherein the second support device comprises a second pair of actuators, wherein a third actuator in the second pair of actuators generates a third force along a first axis and a fourth actuator in the second pair of actuators generates a fourth force along a second, perpendicular axis to create the bend in the output optical fiber.

Claims 5-6 (Canceled)

Claim 7 (Currently amended): An optical switch, comprising:

a plurality of input optical fibers each for receiving a beam of light;

a plurality of output optical fibers;

a mirror positioned opposite the plurality of input optical fibers and the plurality of output optical fibers;

a first array of support devices each connected to a respective one of the input optical fibers and operable to apply one or more forces directly to the respective input optical fiber, wherein the support devices in the first array create bends in respective input optical fibers; and

a second array of support devices each connected to a respective one of the output optical fibers and operable to apply one or more forces directly to the respective output optical fiber, wherein the support devices in the second array create bends in respective output optical fibers, wherein the bends in the input and output optical fibers direct the beams of light from the input optical fibers to the mirror to respective output optical fibers.

Claim 8 (Previously presented): The optical switch of claim 7, wherein each support device in the first array of support devices comprises a first pair of actuators, wherein a first actuator in each pair of actuators generates a first force along a first axis and a second actuator in each first pair of actuators generates a second force along a second, perpendicular axis.

Claim 9 (Previously presented): The optical switch of claim 8, wherein each support device in the second array of support devices comprises a second pair of actuators, wherein a third actuator in each second pair of actuators generates a third force along a first axis and a fourth actuator in each second pair of actuators generates a fourth force along a second, perpendicular axis.

Claim 10 (Original): The optical switch of claim 9, further comprising:

a first plurality of bands of material wherein each band of material in the first plurality surrounds a portion of an exterior surface of a respective one of the input optical fibers ; and

a second plurality of bands of material wherein each band of material in the second plurality surrounds a portion of an exterior surface of a respective one of the output optical fibers.

Claim 11 (Previously presented): The optical switch of claim 10, wherein the first and second forces generated by each first pair of actuators are applied to a respective one of the bands of material in the first plurality to create a bend in a respective one of the input optical fibers.

Claim 12 (Previously presented): The optical switch of claim 11, wherein the third and fourth forces generated by each second pair of actuators are applied to a respective one of the bands of material in the second plurality to create a bend in a respective one of the output optical fibers.

Claims 13-15(Canceled)

Claim 16 (Currently amended): A method for directing a beam of light from an input optical fiber to an output optical fiber in an optical switch, the method comprising the steps of:

transmitting the beam of light into the input optical fiber;

selectively actuating a first support device connected to the input optical fiber to apply a force directly to the input optical fiber to create a bend in the input optical fiber; ~~and~~

selectively actuating a second support device connected to the output optical fiber to apply one or more forces directly to the output optical fiber to create a bend in the output optical fiber; and

reflecting the beam of light off a mirror positioned opposite the input optical fiber and the output optical fiber, wherein the bends in the input and output optical fibers direct the beam of light from the input optical fiber to the mirror to the output optical fiber.

Claim 17 (Previously presented): The method of claim 16, wherein the step of selectively actuating a first support device connected to the input optical fiber to one or more forces directly to the input optical fiber to create a bend in the input optical fiber comprises selectively actuating a first actuator and a second actuator to create a bend in the input optical fiber, wherein the first actuator generates a first force along a first axis and the second actuator generates a second force along a second, perpendicular axis.

Claim 18 (Previously presented): The method of claim 17, wherein the step of selectively actuating a second device connected to the output optical fiber to one or more forces directly to the output optical fiber to create a bend in the output optical fiber comprises selectively actuating a third actuator and a fourth actuator to create a bend in the output optical fiber, wherein the third actuator generates a third force along a first axis and the fourth actuator generates a fourth force along a second, perpendicular axis.

Claim 19 (Previously presented): The method of claim 18, wherein the first and second forces generated by the first and second actuators are applied to a first band of material surrounding a portion of an exterior surface of the input optical fiber and the third and fourth forces generated by the third and fourth actuators are applied to a second band of material surrounding a portion of an exterior surface of the output optical fiber.

Claim 20 (Canceled)

Claim 21 (New): The optical switch of claim 1, wherein the input optical fiber and the output optical fiber are included in a single fiber bundle.

Claim 22 (New): The optical switch of claim 7, wherein the plurality of input optical fibers and the plurality of output optical fibers are included in a single fiber bundle.